



FLWEMS Paramedic Medication Information For:

ALBUTEROL

(Salbutamol, Proventil, Ventolin)

(al-BYOU-ter-ohl)

Pregnancy Category

C Airet Alti-Salbutamol Sulfate* Asmavent* Dom-Salbutamol* Gen-Salbutamol Sterinebs P.F.* Med-Salbutamol* Novo-Salmol Inhaler* PMS-Salbutamol Respirator Solution* Proventil Proventil HFA Proventil Repetabs Rho-Salbutamol* Salbu-2 and -4* Salbutamol Nebuamp* Salmol* Ventodisk Disk/Diskhaler* Ventolin Ventolin Rotacaps Volmax (**Rx**)

Classification

Direct-acting adrenergic (sympathomimetic) agent

See Also

See also *Sympathomimetic Drugs*.

Action/Kinetics

Stimulates beta-2 receptors of the bronchi, leading to bronchodilation. Causes less tachycardia and is longer-acting than isoproterenol. Has minimal beta-1 activity. Available as an inhaler that contains no chlorofluorocarbons (Proventil HFA). Onset, PO: 15-30 min; inhalation, within 5 min. Peak effect, PO: 2-3 hr; inhalation, 60-90 min (after 2 inhalations). Duration, PO: 4-8 hr (up to 12 hr for extended-release); inhalation, 3-6 hr. Metabolites and unchanged drug excreted in urine and feces. Do not use tablets in children less than 12 years of age.

Uses

Bronchial asthma; bronchospasm due to bronchitis or emphysema; bronchitis; children 4 years and older for treatment or prevention of bronchospasm with reversible obstructive pulmonary disease; exercise-induced bronchospasm, including those 4 years of age and older. Prophylaxis of bronchial asthma or bronchospasms. Parenteral for treatment of status asthmaticus. Proventil HFA may be used in clients 4 years of age and older. *Investigational*: Nebulized albuterol may be useful as an adjunct to treat serious acute hyperkalemia in hemodialysis clients.

Contraindications

Aerosol for prevention of exercise-induced bronchospasm is not recommended for children less than 12 years of age. Use during lactation.

Special Concerns

Dosage has not been established for the syrup and solution for inhalation in children less than 2 years of age, for tablets and extended-release tablets in children less than 6 years of age, and the aerosol and inhalation powder in children less than 4 years of age. Albuterol may delay preterm labor. Large IV doses may aggravate preexisting diabetes mellitus and ketoacidosis.

Additional Side Effects

GI: Diarrhea, dry mouth, appetite loss or stimulation, epigastric pain. *CNS*: Hyperkinesia, excitement, nervousness, tension, tremor, dizziness, vertigo, weakness, drowsiness, restlessness, headache, insomnia, malaise, emotional lability, fatigue, lightheadedness, nightmares, disturbed sleep, aggressive behavior, irritability. *Respiratory*: Cough, wheezing, dyspnea, bronchospasm, dry throat, pharyngitis, throat irritation, bronchitis, epistaxis, hoarseness (especially in children), nasal congestion, increase in sputum. *CV*: Palpitations, tachycardia, BP changes, hypertension, tight chest, chest pain or discomfort, angina. *Hypersensitivity (may be immediate)*: Urticaria, **angioedema** rash, **bronchospasm**. *Miscellaneous*: Flushing, sweating, bad or unusual taste, change in smell, muscle cramps, pallor, teeth discoloration, conjunctivitis, dilated pupils, difficulty in urination, muscle spasm, voice changes, oropharyngeal edema.

Overdose Management

Symptoms: Seizures, anginal pain, hypertension, hypokalemia, tachycardia (rate may increase to 200 beats/min).

See *Sympathomimetic Drugs*.

Drug Interactions

ALBUTEROL

(*Salbutamol, Proventil, Ventolin*)

Fir needle oil; Pine needle oil; / ↑ Risk of bronchospasm

How Supplied

Metered dose inhaler: 0.09 mg/inh; Capsule: 200 mcg; Solution: 0.083%, 0.5%; Syrup: 2 mg/5 mL; Tablet: 2 mg, 4 mg; Tablet, Extended Release: 4 mg, 8 mg

Dosage

•**Inhalation Aerosol** *Bronchodilation.*

Adults and children over 4 years of age: 180 mcg (2 inhalations) q 4-6 hr. In some clients 1 inhalation (90 mcg) q 4 hr may be sufficient.

Prophylaxis of exercise-induced bronchospasm.

Adults and children over 4 years of age: 180 mcg (2 inhalations) 15 min before exercise.

•**Inhalation Solution** *Bronchodilation.*

Adults and children over 12 years of age: 2.5 mg t.i.d.-q.i.d. by nebulization (dilute 0.5 mL of the 0.5% solution with 2.5 mL sterile NSS and deliver over 5-15 min). Children, 2-12 years of age, initial: 0.1-0.15 mg/kg/dose; titrate subsequent dosage based on desired clinical response, but not to exceed 2.5 mg t.i.d.-q.i.d. by nebulization.

•**Inhalation Capsules** *Bronchodilation.*

Adults and children over 4 years of age: 200 mcg q 4-6 hr using a Rotahaler inhalation device. In some clients, 400 mcg q 4-6 hr may be required.

Prophylaxis of exercise-induced bronchospasm.

Adults and children over 4 years: 200 mcg (1 capsule) 15 min before exercise using a Rotahaler inhalation device.

•**Syrup** *Bronchodilation.*

Adults and children over 14 years of age: 2-4 mg (1-2 teaspoonfuls) t.i.d.-q.i.d., up to a maximum of 8 mg q.i.d. Children, 6-14 years, initial: 2 mg (1 teaspoonful) t.i.d.-q.i.d.; then, increase as necessary to a maximum of 24 mg/day in divided doses. Children, 2-6 years, initial: 0.1 mg/kg t.i.d.; then, increase as necessary up to 0.2 mg/kg, not to exceed 4 mg t.i.d.

•**Tablets** *Bronchodilation.*

Adults and children over 12 years of age, initial: 2-4 mg t.i.d.-q.i.d.; then, increase dose as needed up to a maximum of 8 mg t.i.d.-q.i.d. In geriatric clients or those sensitive to beta agonists, start with 2 mg t.i.d.-q.i.d. and then increase dose gradually, if needed, to a maximum of 8 mg t.i.d.-q.i.d. Children, 6-12 years of age, usual, initial: 2 mg t.i.d.-q.i.d.; then, if necessary, increase the dose in a stepwise fashion to a maximum of 24 mg/day in divided doses.

•**Proventil Repetabs** *Bronchodilation.*

Adults and children over 12 years of age: 4 or 8 mg q 12 hr up to a maximum of 32 mg/day. Children 6-11 years of age, initial: 4 mg q 12 hr. If necessary, increase the dosage stepwise to a maximum of 12 mg b.i.d. Clients on regular-release albuterol can be switched to the Repetabs in that a 4-mg extended-release tablet q 12 hr is equivalent to a regular 2-mg tablet q 6 hr. Multiples of this regimen, up to the maximum recommended dose, also apply.

•**Volmax Extended Release Tablets** *Bronchodilation.*

Adults and children over 12 years of age: 8 mg q 12 hr; in some clients (e.g., low adult body weight), 4 mg q 12 hr may be sufficient initially and then increased to 8 mg q 12 hr, depending on the response. The dose can be increased stepwise and cautiously (under provider supervision) to a maximum of 32 mg/day in divided doses q 12 hr. Children, 6-12 years of age: 4 mg q 12 hr. The dose can be increased stepwise and cautiously (under provider supervision) to a maximum of 24 mg/day in divided doses q 12 hr.

END OF INFORMATION – NOTHING FOLLOWS